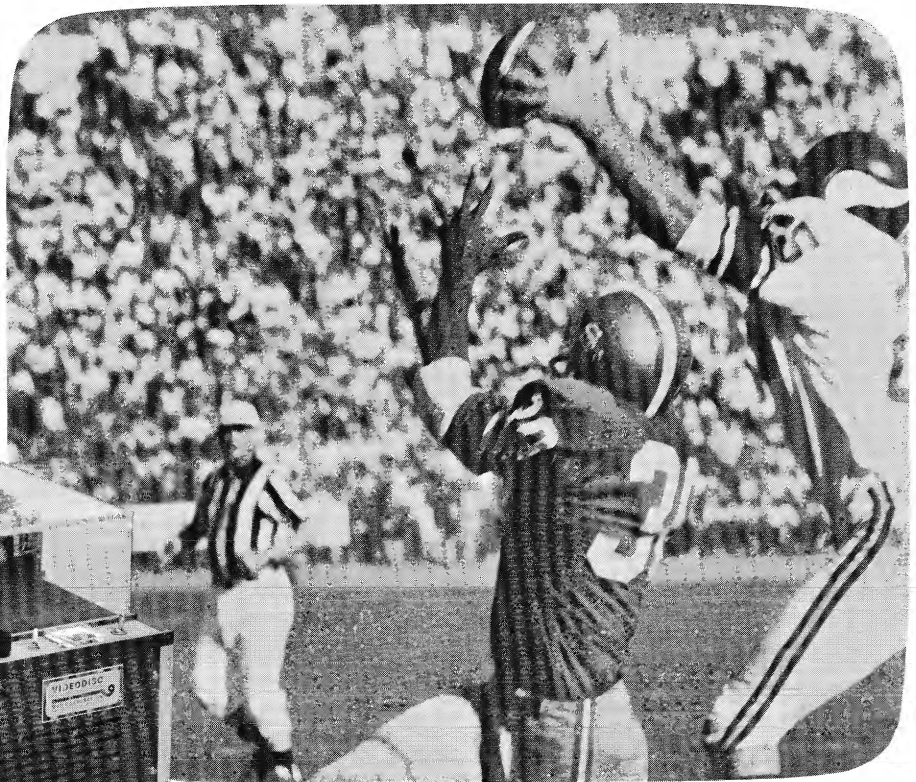
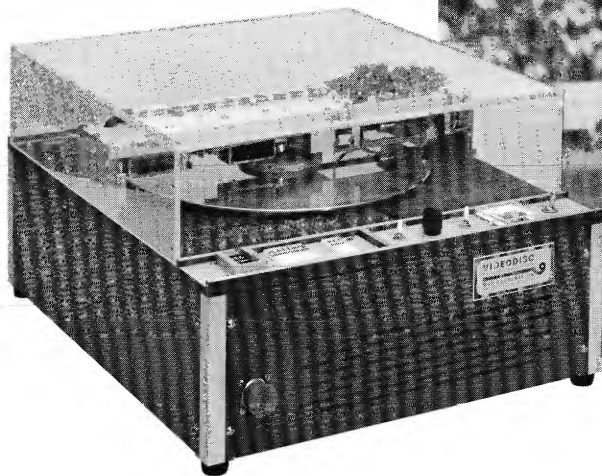


Leading Broadcasters defined the need! **INSTANT REPLAY and STOP ACTION**

**MVR Builds the
VIDEODISC
RECORDER
for Broadcasters**



MVR VIDEODISC Recorder, Model VDR-210CF, 17" W x 19" D x 7" H, Wt. 40 lbs. Horizontal Stability: Within FCC Standards—Part 73.687. Paragraphs 7 and 8.

Television viewers have been shown the unprecedented detail of "Stop-Action." How is it accomplished? With the new MVR VIDEODISC Recorder, most sophisticated advancement in TV recording and playback!

The MVR VIDEODISC Recorder gives you the only method for full review of detail. At the touch of a button, you have the option (1) instant replay of twenty-second segments in regular motion (2) individual freeze-action shots of any part of the twenty-second segment, and you can hold any shot as long as you want.

With the new MVR VIDEODISC Recorder you will have more dramatic presentation of sports, news and commercial production.

MVR
MVR CORPORATION
Reliability Through Advanced Design

For complete specifications, prices and delivery, reply on your company letterhead to MVR Corporation, 470 San Antonio Rd., Palo Alto, Calif.

VDR - 210CF

INSTANT REPLAY!

STOP - ACTION!

DESCRIPTION

The MVR Corporation VIDEODISC TV Disc Recorder is a giant step forward — it provides **instant playback** plus the advantage of **selective stop action**.

Initially designed to provide TV viewers the detail of "stop-action" in network sports programs, the MVR VIDEODISC has captured the imagination of coaches, trainers, and athletes as a means of improving individual and team performance. Also, in fields as scientific research and medicine, the MVR VIDEODISC is being applied to gain new insight and knowledge.

The MVR Corporation VIDEODISC records a standard TV signal direct from TV camera, or from a previously recorded TV tape. Instant playback with selective stop-action freezes any given frame in the recorded sequence allowing the most detailed analysis of recorded visual information possible. The machine actually "captures" time, up to 20 seconds of "real time" for instant replay. At any point during replay, press the "Freeze" button to stop the action (and replay head). This holds any frame for as long as desired, the action will continue from this point when the "Play" button is pressed. The "Play-Freeze" sequence is easily repeated any number of times.

The recording medium is a $\frac{3}{16}$ " thick aluminum 12" diameter disc with a magnetically sensitive surface. The VIDEODISC utilizes the same magnetic recording principles as TV tape. Yet, the disc has none of the sub-standard performance characteristics of tape, such as tape stretch instability, abrasiveness and clogging of the video heads.

The VDR-210CF is specifically designed for instant replay and stop-action application to sports, news, and similar program material where one twenty-second sequence of information can be recorded, stored and played back and one "frame" captured in stop-action at any given time. Other models for scientific and medical applications provide multiple "frame" storage.

APPLICATIONS

TV Broadcast:

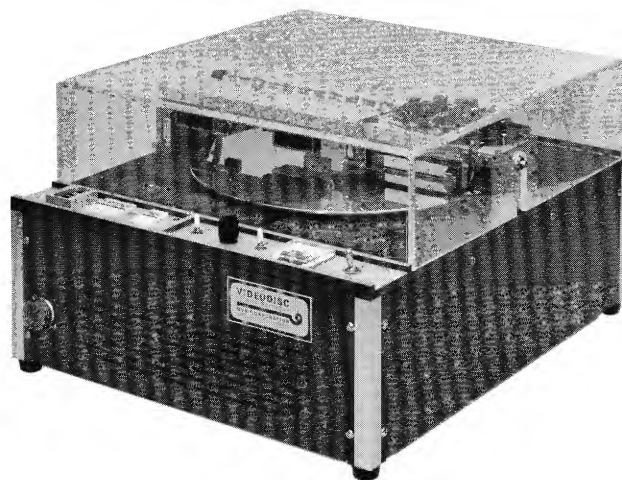
Dramatic presentation of live or recorded material.
Production of special program effects, commercials.

Sports:

Finish line judging aid.
Training analysis.

Scientific - Medical:

Radiology.
Stop-action analysis.
Educational aid.



VDR - 210CF SPECIFICATIONS

SIZE:	Width - 17" (43.18 cm) Height - 11" (27.94 cm) Depth - 19" (58.29 cm)
WEIGHT:	40 Pounds
RECORDING CAPACITY:	20 seconds
RESET TIME:	2.0 seconds (max.)
MOUNTING:	Table top, portable. (Rack mount on special order.)
POWER REQUIREMENTS:	117 vac, 200 watts
VIDEO CHANNEL:	Standard 1.0 v, composite input and output. 75 Ω terminated, unbalanced.
INPUT RANGE:	Adjustable from 0.5 v to 1.5 v peak-to-peak.
OUTPUT:	2 identical outputs, 75 Ω unbalanced source terminated. Adjustable from 0.5 v to 1.5 v peak-to-peak.
FREQUENCY RESPONSE:	± 3 db from 10 cycles to 3.8 Mc with respect to 1 Mc.
SIGNAL-TO-NOISE:	40 db or better, peak-to-peak video to rms noise.
TRANSIENT RESPONSE:	Rise time less than 0.2 μ s (10 percent to 90 percent) on pulses measured with pulse inputs with 0.1 μ s rise time; over-shoot less than 10 percent.
DIFFERENTIAL GAIN:	Less than 10 percent.
HORIZONTAL STABILITY:	Within FCC standards- Part 73.687. Paragraphs 7 and 8.

VIDEODISC

TV DISC RECORDER

MVR CORPORATION

TV DISC RECORDER VDR SERIES

Reliability Through Advanced Design



VDR - 100



VDR - 200

The VDR Series represents a significant advancement in the art of TV signal recording and playback. There are eight standard models in the Series, custom versions are also available. The MVR VIDEODISC Recorder makes it possible to record and playback up to 800 single frames on manual or automatic mode. Continuous action of short duration (up to 30 seconds with 14" disc) can be recorded and instantly played back on the Spiral Feed Continuous models.

The MVR VIDEODISC Recorder is a completely self-contained unit for recording and reproducing television signals or similar information. Its small size and light weight make it ideal for broadcast and closed circuit applications. Reliability is designed into the machine; all solid-state electronics and circuits on individually etched circuit cards minimize service. As a storage medium the MVR VIDEODISC Recorder utilizes a highly durable metallic disc. The 12-inch diameter disc has a storage capacity of up to 1000 different recordings (TV frames); the 14-inch diameter disc capacity is 1600 frames.

Recorded images can be reproduced immediately and are virtually indestructible in normal use, but may easily be erased and replaced with new recordings when desired. Any recorded information on the disc may readily be located and played back as many times as needed or replaced at any time. The disc rotation is synchronized with the TV signal so that one complete frame (two interlaced fields) is recorded for each revolution of the disc.

Short-duration intervals (up to approximately 30 seconds) of continuous action may be recorded and reviewed instantly.

The MVR VIDEODISC Recorder is an advanced design instrument for use in any application where maximum control of visual information is required. It is especially well suited for use in the broadcast industry, TV commercial production, education and sports training, industry, medical and scientific fields and ground station aero-space TV application.

TYPE	MODEL NUMBER	INDEXING		
		MANUAL	STEP MOTOR	CONTINUOUS SPIRAL
SINGLE CHANNEL	VDR-100 M			
	VDR-100 S			
	VDR-100 C			
DUAL CHANNEL	VDR-200 MM			
	VDR-200 MS			
	VDR-200 MC			
	VDR-200 SS			
	VDR-200 SC			

Basic VIDEODISC Recorder is a single channel disc recorder utilizing either a 12" or 14" metallic disc. Total recording capability is 500 frames per side for a 12" disc, approximately 800 frames per side on a 14" disc. Three methods of indexing are available: (M) Manual, hand crank; (S) stepping motor, variable from 3.25, 7.5 and 15 frames per second on record, variable rate of playback. (C) continuous spiral to record and playback up to 20 seconds per one side of 12" disc, or approximately 30 seconds per one side of 14" disc. On two channel VIDEODISC Recorders, combination of two methods of indexing are available, i.e.: Manual and stepping motor (MS); stepping and continuous spiral (SC) etc. Other index methods are available on special order.

Custom built versions of Multi-channel VDR up to a maximum of eight channels are available on special order.

DESCRIPTION

The expected useful life of the disc and the record-reproduce heads is in excess of 1000 hours. The discs are easily replaceable by the user.

The high performance and reliability as well as the compact size, and extreme portability of the Disc Recorder achieves a high degree of versatility and adaptability to a wide range of potential applications, such as:

APPLICATIONS

- record and instant playback of Broadcast and CCTV television still-frames,
- continuous motion recordings of short duration at 30 frames per second,
- video delay device with a one to thirty millisecond range,
- replacement for storage tube devices (VIDEODISC provides non-destructive readout process),
- storage device for X-ray images in conjunction with TV/image intensifier fluoroscopy systems,
- source of pre-recorded test signals for laboratory or broadcast station use,
- quick access storage file for images from slides or transparencies,
- for wave-form analysis in conjunction with oscilloscopes,
- storage of photographs, signatures and drawings,
- system for multiplexing of TV signals on a transmission channel.

The MVR VIDEODISC Recorder is available in eight models with accessories, as listed in the Price Schedule.

VDR - 100 and VDR - 200 SPECIFICATIONS

SIZE:	Width-17" (43.18 cm) Height-7" (17.78 cm) VDR-100 VDR-200 Height-11" (27.94 cm) VDR-200 Depth-19" (58.26 cm)
WEIGHT:	40 Lbs. VDR-100 50 Lbs. VDR-200
MOUNTING:	Table top, portable. (Rack mount on special order.)
POWER REQUIREMENTS:	117 vac, 120 watts to 240 watts maximum.
VIDEO CHANNEL:	Standard 1.0 v, composite input and output. 75 Ω terminated, unbalanced.
INPUT RANGE:	Adjustable from 0.5 v to 1.5 v peak-to-peak.
OUTPUT:	2 identical outputs, 75 Ω unbalanced source terminated. Adjustable from 0.5 v to 1.5 v peak-to-peak.
FREQUENCY RESPONSE:	± 3 db from 10 cycles to 3.8 Mc with respect to 1 Mc.
SIGNAL-TO-NOISE:	40 db or better, peak-to-peak video to rms noise.
TRANSIENT RESPONSE:	Rise time less than 0.2 μ s (10 percent to 90 percent) on pulses measured with pulse inputs with 0.1 μ s rise time; over-shoot less than 10 percent.
DIFFERENTIAL GAIN:	Less than 10 percent.
HORIZONTAL STABILITY:	Within FCC standards-Sec. 3-3.687 (a) paragraphs 7 and 8.

MVR CORPORATION

470 SAN ANTONIO ROAD
PALO ALTO, CALIFORNIA 94306
PHONE (415) 327-1220

PRICE LIST
VIDEODISC* TV DISC RECORDERS
(VDR-100-200 SERIES)
"DESK TOP MODEL"
12" DISC

<u>DESCRIPTION</u>		525/60	625/50
<u>MODEL</u>	<u>SINGLE CHANNEL</u>	<u>PRICE</u>	<u>PRICE</u>
VDR-100M	Manual index, 500 frame capacity each side of Record-Disc.	\$ 5,500.00	\$ 5,750.00
VDR-100C	Continuous record/playback 20-second capacity, spiral feed.	6,295.00	6,545.00
VDR-100S	Step-motor index, 500 frame capacity per side.	6,900.00	7,150.00
<u>DUAL CHANNEL</u>			
VDR-200MM	Manual index, 1,000 total frame capacity-500 frame per side.	7,770.00	8,020.00
VDR-200MC	Manual index plus continuous, 500 frame capacity with 20 second record/play capability, two channel record.	9,445.00	9,695.00
VDR-200MCX	Same as VDR-200MC for X-ray application, single frame freeze.	9,445.00	9,695.00
VDR-200SC	20 second continuous plus 500 frame with step motor index.	10,145.00	10,395.00
VDR-210CF	20 second continuous plus stop action for Broadcast, for Instant-Replay.	10,200.00	10,450.00
VDR-12	12" Record-Disc.	250.00	

MODELS & PRICES SUBJECT TO CHANGE WITHOUT NOTICE!

*TM MVR Corp.

MVR CORPORATION

470 SAN ANTONIO ROAD
PALO ALTO, CALIFORNIA 94306
PHONE (415) 327-1220

December 12, 1966

Mr. Theodor H. Nelson
Sr. Staff Rsch.
Harcourt Brace & World
757 Third Ave.
New York, N. Y.

Dear Mr. Nelson:

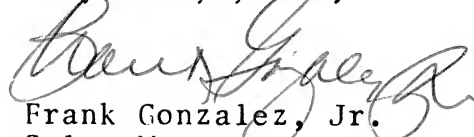
The enclosed information describes the various models of the VIDEODISC*, TV Disc Recorders.

We have a VIDEODISC Recorder for nearly every television system application. Over the past three years we have been manufacturing VIDEODISC Recorders, we have designed and delivered VIDEODISC Recorders for INSTANT REPLAY, STOP ACTION applications, (won an Emmy for it!), SLOW MOTION REPLAY, transient analysis, time share recording, video buffer, X-ray, radar recording in conjunction with scan converter systems, TV subtraction systems and several others we cannot discuss in this letter.

Consider your requirements, and feel free to contact us about your application.

Thank you for your interest in MVR Corporation and its products.

Very truly yours,


Frank Gonzalez, Jr.
Sales Manager

FG:jmr
Enclosure

*TM MVR Corporation